

AMENDMENTS TO THE SPECIFICATION

Please amend the title as follows:

OZONE GENERATION METHOD OF GENERATING OZONE, OZONE GENERATION APPARATUS GENERATOR, SOURCE FEED GAS FOR OZONE GENERATION[[,] AND HUMIDIFIER

Following the title, please insert the following paragraphs:

Cross-Reference to Prior Application

This is a U.S. national phase application under 35 U.S.C. §371 of International Patent Application No. PCT/JP01/11606 filed December 27, 2001. The International Application was published in Japanese on July 24, 2003 as WO 03/059809 A1 under PCT Article 21(2).

Please replace the paragraph beginning on page 1, line 7, with the following rewritten paragraph:

--The present invention relates to an ozone generation method and an ozone generation apparatus by means of electric discharge, and a source gas for ozone generation and a humidifier.--

Please replace the paragraph beginning on page 1, line 12, with the following rewritten paragraph:

--The manufacturing process of a semiconductor began to employ ozone gas for the formation of an oxide film on a wide variety of substrates such as a semiconductor wafer and glass substrate for crystal liquid, ashing of a resist on a substrate, cleaning of a substrate, and the like. Because the manufacturing of the semiconductor requires the ozone gas having a to have fewer impurities, the ozone gas used therein is usually generated by supplying an ozonizer of a discharge-type ozonizer with the an oxygen gas having a high purity as source gas. The generated ozone gas for the semiconductor manufacture is transported to any section where the gas is used through a pipe made of stainless steel such as SUS316L or fluororesin such as PFA so that the gas is not contaminated.--

Please replace the paragraph beginning on page 1, line 25, with the following rewritten paragraph:

--However, when ~~the high purity oxygen gas of a high purity~~ is used as the source gas, an ozone density of the ozone gas decreases over time from the time when the ozone is first generated, which results in a stable ozone density much lower than an initial ozone density and further causes the problem that even the stable ozone density is destabilized. As a measure for solving the problem, a small amount of catalyzer gas is added to the oxygen gas of a high purity. High purity used ~~As the catalyzer gas, nitrogen gas is used as the catalyzer gas having a high purity, which because it~~ is easily accessible and inexpensive, ~~is often used~~ in the manufacturing process of the semiconductor.--

Please replace the paragraph beginning on page 4, line 16, with the following rewritten paragraph:

--The present invention ~~has been completed based on the foregoing findings,~~ and relates to an ozone generation method, wherein ~~an ozonizer of an electric-discharge type ozonizer~~ is supplied with the oxygen gas including the moisture of 0.05 – 40 ppm as the source gas for ozone generation. The present invention further relates to an ozone generation method, wherein the moisture is added to the oxygen gas when the oxygen gas is supplied to the discharge-type ozonizer as the source gas for ozone generation. An ozone generation apparatus according to the present invention comprises the discharge-type ozonizer, a gas supply system for supplying the ozonizer with the source gas, a moisture adjusting device, which is interposed in the gas supply system and adjusts the moisture volume in the source gas. The present invention further relates to source gas for ozone generation made of the oxygen including the moisture of 0.05 – 40 ppm. The present invention further relates to a humidifier for adding the moisture to the oxygen gas supplied to the discharge-type ozonizer as the source gas for ozone generation, comprising a water tank containing pure water, and a resin tube, which is dipped in the pure water in the water tank and distributes the oxygen gas inside thereof. The present invention further relates to a humidifier comprising a tube assembly comprised

of a plurality of resin tubes bound together and a vessel for containing the pure water together with the tube assembly.--

Please replace the paragraph beginning on page 6, line 5, with the following rewritten paragraph:

--The moisture volume included in the oxygen gas to be supplied to the ozonizer is set at 0.05 – 40 ppm because the moisture of less than 0.05 ppm cannot control the decrease of the ozone density effectively ~~enough~~, and the moisture exceeding 40 ppm lowers an efficiency of the ozone generation to thereby cause the ozone density to start to fall again and further unfavorably exerts an adverse affect on a discharge unit of the ozonizer and down-stream-side process. A preferable lower limit is 0.1 ppm, and more desirably 0.5 ppm. A preferable upper limit is 10 ppm, and more desirably 3 ppm.--

Please replace the paragraph beginning on page 8, line 5, with the following rewritten paragraph:

--The humidifier can be a type utilizing the before-mentioned resin tube or a type directly adding the moisture to the oxygen gas. ~~The directly Directly adding a~~ humidifier has a configuration that the moisture is directly supplied to the oxygen gas distributed through the pipe by means of, for example a micropipet ~~or the like~~, or a configuration that the oxygen gas is directly distributed into the vessel containing water. In the case of the latter, the oxygen gas can be bubbled in the water in the vessel or can be merely contacted with the water in the vessel. In the case of the bubbling, where the moisture may be excessively added, it is desirable to combine dry oxygen gas having a low dew point with the oxygen gas passing through the water in the vessel so that the moisture volume is adjusted.--

Please replace the paragraph beginning on page 10, line 7, with the following rewritten paragraph:

--Fig. 4 is a view illustrating a configuration of another humidifier embodiment.--

Please replace the paragraph beginning on page 10, line 9, with the following rewritten paragraph:

--Fig. 5 is a view illustrating a configuration of ~~yet another~~ a further humidifier embodiment.--

Please replace the paragraph beginning on page 10, line 15, with the following rewritten paragraph:

--An ozone generation apparatus shown in Fig. 1 comprises ~~an ozonizer 1~~ of an electric discharge type ozonizer 1 as a main body of the apparatus. To the ozonizer 1 is supplied, for example, oxygen gas having a high purity from an oxygen gas source 2 through a pipe 3. The oxygen gas source 2 is, for example, liquid oxygen contained in a gas cylinder. A humidifier 4 as a moisture adjusting device is provided at an intermediate position in the pipe 3. The humidifier 4 comprises a water tank 5 containing pure water, a tube 6 having a spiral shape and made of resin having moisture permeability, for example, Teflon® such as Teflon, a heater 7 for controlling a temperature of the pure water in the water tank 5, and an agitator 8 for agitating the pure water in the water tank 5. The tube 6 is interposed at the intermediate position in the pipe 3 and dipped in the pure water in the water tank 5.--

Please replace the paragraph beginning on page 12, line 19, with the following rewritten paragraph:

--In the configuration according to the present embodiment, the moisture is added, in the humidifier 4, to the oxygen gas passing through the tube 6 made of resin having the moisture permeability such as Teflon Teflon® and dipped in the heated pure water in the water tank 5. However, it is not necessarily the case that the resin tube having the satisfying moisture permeability and warm water must always be used. The resin tube having an inadequate moisture permeability such as PTFE and water at room temperature can also be effectively used when the moisture permeability is improved by thinning a thickness of the tube assembly and enlarging a surface area thereof.--

Please replace the paragraph beginning on page 14, line 11, with the following rewritten paragraph:

--The humidifier 4 shown in Fig. 4 adds the moisture to the oxygen gas through the resin tubes and can directly add the moisture without the resin tubes. Fig.5 (a), (b) and (c) show other embodiments of humidifiers, which directly adds the add moisture.--